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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Consider
Alternative-Fueled Vehicle Programs, Tariffs, and
Policies.

Rulemaking 13-11-007
(Filed November 14, 2013)

**CHARGEPOINT, INC. COMMENTS ON SB 350 TRANSPORTATION
ELECTRIFICATION WORKSHOP AND APPLICATION GUIDANCE STRAW
PROPOSAL**

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In accordance with the Amended Scoping Memo and Ruling of the Assigned Commissioner and Administrative Law Judge (“Ruling”) and the California Public Utilities Commission (“Commission”) Rules of Practice and Procedures, ChargePoint, Inc. (“ChargePoint”) submits its comments on issues discussed at the April 29, 2016 Commission workshop on transportation electrification issues raised by SB 350 and the Workshop Questions identified in Appendix B of the Ruling.

ChargePoint appreciates this opportunity to provide initial comments on implementation of SB 350. We support and applaud the Commission’s leadership in bringing together regulators and a diversity of interested stakeholders to address transportation electrification through a collaborative and forward-looking policy-making process. The comments below are organized in response to the Workshop Questions.

I. In what ways should the Application Guidance Straw Proposal in Appendix A of this Scoping Memo be modified to better align with the mandates of SB 350?

First, ChargePoint supports the guidance that applications should propose 2-5 year pilots. We agree that the pilots should be limited in length to allow for adequate Commission review. That said, we believe that the utility applications for electric vehicle (“EV”) charging

infrastructure pilots and programs should also provide a clear long-term vision. Right now we are facing ambiguity on what happens to the infrastructure and the duration and administration of easements under the implementation of the Phase 1 pilots. Though the deployment part of these pilots may be limited to 2-5 years, it is important to understand what the longer term vision will be for allowing expansion of the charging infrastructure, with or without utility involvement. Similarly, applications should clearly address how the pilots or programs support other longer term goals such as resource planning and grid balancing, customer participation in demand response programs, rate structures, and data collection beyond the limited length of the pilot.

Second, the Commission should expand on #3 in its Straw Proposal on what the applications “must” do. We appreciate the points made here requiring utility applications to account for ratepayer interest, protect and promote competitive markets, and prioritize high emission reduction potentials. However, SB 350 clearly states that the utility applications must align with all parts of Section 32 of the law including the legislative findings now in Public Utilities Code section 740.12.

Section 740.12(b) states: “The commission, in consultation with the State Air Resources Board and the Energy Commission, shall direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, achieve the goals set forth in the Charge Ahead California Initiative (Chapter 8.5 (commencing with Section 44258) of Part 5 of Division 26 of the Health and Safety Code), and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. Programs proposed by electrical corporations shall seek to minimize overall costs and maximize overall benefits. The commission shall approve, or modify and approve, programs and investments in transportation

electrification, including those that deploy charging infrastructure, via a reasonable cost recovery mechanism, if they are consistent with this section, do not unfairly compete with nonutility enterprises as required under Section 740.3, include performance accountability measures, and are in the interests of ratepayers as defined in Section 740.8.” (emphasis added)

The Commission should require each utility application to demonstrate how it aligns with all of the goals established in Section 740.12, including goals that are currently understated or missing from the draft straw proposal. We believe greater emphasis should be made on 740.12(a)(1)(C) to promote increased access for disadvantaged communities and low- and moderate-income communities. ChargePoint also would like to see a guideline detailing more specifically the minimum requirements as to how the utility applications meet 740.12(a)(1)(F) to “stimulate innovation” and “enable consumer options in charging equipment and services” in addition to promoting competitive markets. We believe that this language calls for customer choice and allowing multiple vendors to participate in the utility programs. Innovation may also be stimulated by allowing for rolling vendor qualification processes rather than limiting companies and products from being able to participate in the utility programs. Finally, utilities should be required to describe plans that fulfill meet the requirement of 740.12(a)(1)(G) to encourage EVs to assist “grid management” and “integrating generation from eligible renewable energy resources” which could be done in coordination with existing PUC programs and initiatives as noted in the Straw Proposal, including Integrated Resource Plans, Distributed Resource Planning, Energy Storage, and Energy Storage initiatives.

ChargePoint further recommends that the Commission direct the utilities to specify in applications how they intend to finance proposed programs, including areas where they plan to seek ownership of infrastructure and areas where they plan to deploy customer rebates, and to

provide justification in their applications as to why they believe the type of expenditure they have selected will be most effective towards meeting the goals and requirements of SB 350 in each type of circumstance. This is implied in the requirement that utilities “account for ratepayer interest” but could be expanded given the experience of litigating ownership proposals within the Phase 1 applications. Particularly with respect to any proposals involving utility ownership and/or control of customer-side EV charging equipment and services, a detailed showing is necessary in order for the Commission to apply the SB 350 requirements and consider alternatives.

The Straw Proposal requires that the applications must align with California policies and “compliment, inform, and coordinate” with existing state initiatives, including those currently underway and proposed by the California Energy Commission. In this regard, for example, the California Energy Commission investments in DCFC as well as the valuable AB 118 program investments that will be targeting EV charging infrastructure markets should be considered. These programs are technology neutral, require private investment along side government funding and address market segment challenges through the public comment process. The key principles of “not picking winners and losers; enabling private sector “skin in the game” as well as public/private collaboration” should be adopted in the ratepayer funded programs as well.¹

The Straw Proposal guidance also mentions the need to: “prioritize sector with high emissions reduction potential. Consider the potential for technology maturation and market transformation.” In this regard we recommend that the Commission take advantage of data from the current EV charging providers to compliment the information that the utilities will be providing. The Electric Vehicle Charging Association issued a white paper outlining the robust

¹ [California Energy Commission “Fuels and Transportation Merit Review”, 15-MISC-04, Transcript of the 04/25/2016 Workshop.](#)

competitive market in California.² ChargePoint, for example, has data from over 10 million charging sessions. Existing data can assist the Commission in understanding market transformation through utilization data, energy usage and GHG savings.

In conclusion, nothing in SB 350 is intended to replace the innovation of the industry with utility programs. That would be contrary to the legislative intent of AB 631, SB 454, AB8, and AB 118 as well as decisions of this Commission in Rulemaking 09-08-009 and this proceeding. The Commission must be careful to integrate these issues and data into the guidance and application process.

II. In light of current industry development and technology availability, should the Commission focus on particular transportation sectors or market barriers and why?

Technology is rapidly evolving in the EV charging industry. ChargePoint has launched multiple new products and services during the brief period of time that this docket has been open. The Commission's policies should support and encourage the private sector to continue to innovate and develop new technologies at a rapid speed that is not hindered by awaiting the next round of utility procurement. Utility programs should ideally be structured in a way that accommodates ongoing advancements and improvements in technology and customer offerings.

As ChargePoint and other parties have discussed at length in other comments in this docket and in the Phase 1 pilots, rapid development in industry and technology is best supported by policies that enable, rather than replace, customer choice and private investments in network technologies and services. We support a proposal made by Southern California Edison ("SCE") at the April 29 workshop to have the Commission develop a checklist or guidelines for allowing the utility to move ahead with installing make ready in an expedited fashion. This is the scalable

² ["Case Study: Growth of California's EV Charging Infrastructure" October 2015.](#)

approach to utility investment in a growing and rapidly innovating market space. It addresses concerns about free ridership and stranded assets, promotes and facilitates private investment, while still allowing the Commission to provide tailored subsidies to enable sustained growth and address the needs of specific customer sectors.

ChargePoint is also excited about the opportunity under SB 350 to expand transportation electrification beyond light duty vehicles. The Commission should work with stakeholders to identify opportunities in the medium and heavy duty transportation sectors, particularly buses. Not only will this help with greater emissions reductions, it will also enable an even more robust network of fast charging infrastructure. As the Commission considers near term policy development to advance infrastructure development in these sectors, we would encourage a discussion on rate reform, particularly on demand charges.

In addition to demand charge reform, we encourage the Commission and stakeholders to consider market barriers beyond simply the number of charging stations in the ground that may be limiting EV adoption. As Assigned Commissioner Peterman noted in the April 29 workshop, it will be important to align with vehicle trends and expectations around the cars. Since this involves issues that reach beyond the role of utilities alone, it will be important to coordinate SB 350 implementation across multiple stakeholders, agencies, and programs to ensure maximum EV adoption and fulfillment of the ZEV goal. The Commission should require the utilities to develop applications in a more collaborative manner, and to undertake stakeholder partnerships with the parties that can provide relevant information and assistance, including charging station companies, automakers, community choice aggregators, property owners, nonprofits, and advocacy groups. Requiring this approach for the next round of applications under SB 350 will ensure effective input from all interested parties and potential partners, improve the quality of

applications, identify issues and obstacles earlier in the process, and reduce or avoid litigation. It will also enable the Commission to make a more informed and balanced decision on how the utilities' programs can benefit from the involvement of partners.

Lastly, and importantly, the Commission needs to review the results of IOU phase 1 EV charging pilots before moving ahead with phase 2 of the programs, to determine if market barriers identified to be addressed by those programs have been alleviated. For example, all three IOUs are seeking to promote charging station deployment in multifamily housing, which is currently an underpenetrated market. It may be appropriate to follow up on these deployments with more targeted EV education programs, beneficial rate structures to the site host, or coordination with other statewide programs to encourage multifamily housing residents to get an EV now that there is available charging infrastructure. The first phases of the IOU pilots should also be evaluated to determine if new market barriers have been created due to limits on competition, lengthy or slow deployment timelines, or other problems causing confusion for site hosts. It may be necessary to make significant changes to these programs to ensure success of the second phases and to meet the requirements of SB 350.

We would also encourage the Commission and utilities to consider other business models outside of the three Phase 1 IOU pilots. Los Angeles Department of Water and Power (LADWP) is offering rebates for charging stations and promoting rapid deployment of stations on a faster timeline than proposed by the IOUs seeking to own aspects of the charging infrastructure. This may be a model for the IOUs to consider in their next phases.

III. What needs for standards development, research and development, or pilot projects exist that should be addressed by the Commission? What ongoing initiatives may be ready for increased scale?

First, as an important point of clarification, the Commission does not need to pursue standards *development* for EV charging equipment. Standards should be developed through national and/or international standards-making bodies with full involvement from industry leaders and using legal best practices to prevent collusion and antitrust violations. It could be damaging to technology development if the Commission seeks to develop standards unique to its limited jurisdiction over IOU territories. We assume that this is not the Commission's intent, but it is important to underscore this point.

ChargePoint encourages the Commission to consider aligning with standards currently being developed in recognized Standards Development Organizations like NEMA, IEEE, NIST, and ISO/IEC which are implemented by the charging station industry in California. For example, NEMA has developed EV Charging Interoperability Standards which allow drivers to roam between networks using a single RFID card. Likewise, as provided in the Appendix A Straw Proposal, we would support the Commission's coordination with the California Air Resources Board, which is seeking to implement SB 454 on interoperability standards.

For pilot projects, ChargePoint would be interested in seeing the utilities build demand response programs that leverage cloud-based technology using Web APIs (application program interfaces). APIs are a low-cost and efficient web service used by nearly all web-based technology companies that utilities have been slow to implement. Examples of pilot programs we would like to see are commercial and residential demand response, with an emphasis on local grid conditions (taking into account DG and utility scale renewable resources) and driver

experience. In particular, DR programs focused on fleets would be ideal given the large load they potentially represent under the control of a single administrator (e.g., the fleet manager).

For ongoing initiatives ready to be increased in scale, ChargePoint would be interested in seeing the existing utility DR pilots expanded to include multiple vendors. PG&E currently has a residential demand response pilot underway with BMW drivers. SCE has a workplace demand response pilot. We would be interested in learning the results of these pilots and working with the IOUs to expand these pilots into multivendor initiatives, which could provide greater grid benefits per the goals of SB 350, and align with state policies supporting competitive markets in DR and related services. We would also note that SCE and SDG&E have requested DR-capable charging infrastructure in the RFPs in their Phase 1 EV infrastructure programs. This seems to set up the possibility of a larger DR initiative in the future.

IV. What should the application guidance ruling consider about the issues raised in the ARB workgroup meeting of April 8, 2016, and the issues raised at the April 29, 2016 workshop?

In the April 29 workshop, former Commissioner Mark Ferron encouraged participants to think more creatively to achieve widespread EV adoption. Commissioner Peterman also commented on the need for utilities to stick to their “core competencies” but that “this shouldn’t just be about infrastructure.” The application guidance ruling should consider ways to promote out-of-the-box thinking that achieves more than simply getting more EV charging stations in the ground. ChargePoint strongly agrees with both points. It is unclear in the Straw Proposal how the utility applications will be evaluated based on their ability (rather than simply their “alignment” as stated in proposal) to achieve EV adoption, emissions reduction, and the other policy goals of the state.

This could be clarified by providing clear metrics for success in the application guidance. For example, the Air Resources Board staff noted that California is on track to meet its ZEV goal based on vehicle production projections from the automakers. What does that mean for implementing this bill? There have also been debates about using the attach rate of vehicles to charging stations and what is the appropriate number to achieve. The Commission should use the SB 350 language, including the section 740.12 language in the PUC Code as we have discussed above to set metrics for evaluating utility applications and later the success of the programs. This will minimize debate around the merits of the programs and provide some market clarity as to what the longer term vision is for after these programs are complete.

V. Conclusion

ChargePoint appreciates the Commission's consideration of the comments above. We look forward to working with the Commission and other stakeholders on policies to achieve the goals of SB 350.

Dated: May 18, 2016

Respectfully submitted,

By: _____/s/

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